## Engineering Data

## 90 Series

Please refer to Footnote A \& C below.

| SIZE <br> Eff.Area | Velocity Duct Pt | $\begin{aligned} & 300 \\ & .007 \end{aligned}$ | $\begin{aligned} & 400 \\ & .011 \end{aligned}$ | $\begin{aligned} & 500 \\ & .017 \end{aligned}$ | $\begin{aligned} & 600 \\ & .024 \end{aligned}$ | $\begin{array}{r} 700 \\ .034 \end{array}$ | $\begin{aligned} & 800 \\ & .044 \end{aligned}$ | $\begin{aligned} & 900 \\ & .055 \end{aligned}$ | $\begin{gathered} 1000 \\ .068 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \hline 6 " \\ & .141 \mathrm{ft}^{2} \end{aligned}$ | CFM <br> Throw NC | $\begin{gathered} \hline 45 \\ 2 / 2 / 2 \\ <20 \\ \hline \end{gathered}$ | 56 $2.5 / 2.5 / 3$ 20 | 67 $2.5 / 3 / 3.5$ 25 | $\begin{gathered} \hline 82 \\ 3 / 3.5 / 4 \\ 25 \\ \hline \end{gathered}$ | 98 $3.5 / 4 / 4.5$ 30 |  | $\begin{gathered} 124 \\ 4 / 5 / 6 \\ 30 \\ \hline \end{gathered}$ | $\begin{gathered} \hline 138 \\ 5 / 6 / 7 \\ 35 \\ \hline \end{gathered}$ |
| $\begin{aligned} & \mathbf{8 "} \\ & .222 \mathrm{ft}^{2} \end{aligned}$ | CFM <br> Throw NC | $\begin{gathered} \hline 71 \\ 2 / 2 / 2 \\ <20 \\ \hline \end{gathered}$ | $\begin{gathered} \hline 92 \\ 2.5 / 3 / 3.5 \\ 20 \\ \hline \end{gathered}$ | $\begin{gathered} \hline 118 \\ 3 / 3.5 / 4 \\ 25 \\ \hline \end{gathered}$ | $\begin{gathered} \hline 134 \\ 4.5 / 5 / 6 \\ 25 \\ \hline \end{gathered}$ | 165 $4.5 / 5.5 / 6.5$ 30 | $\begin{gathered} \hline 184 \\ 5 / 6 / 7 \\ 30 \\ \hline \end{gathered}$ | 204 $5.5 / 7 / 8.5$ 30 |  |
| $\begin{aligned} & 10 " \\ & .348 \mathrm{ft}^{2} \end{aligned}$ | CFM <br> Throw NC | $\begin{gathered} \hline 107 \\ 2.5 / 2.5 / 3 \\ <20 \\ \hline \end{gathered}$ | $\begin{gathered} \hline 143 \\ 3 / 3.5 / 4 \\ 20 \\ \hline \end{gathered}$ | 179 <br> 4/4.5/5 <br> 25 | $\begin{gathered} \hline 214 \\ 4.5 / 5 / 6 \\ 30 \\ \hline \end{gathered}$ | $\begin{gathered} \hline 245 \\ 5 / 6 / 7 \\ 30 \\ \hline \end{gathered}$ | $\begin{gathered} \hline 281 \\ 6 / 7 / 8 \\ 30 \\ \hline \end{gathered}$ | 316 $6.5 / 8 / 9.5$ 35 |  |
| $\begin{aligned} & 12 " \\ & .508 \mathrm{ft}^{2} \end{aligned}$ | CFM <br> Throw <br> NC | $\begin{gathered} \hline 153 \\ 2.5 / 3 / 3.5 \\ <20 \\ \hline \end{gathered}$ | $\begin{gathered} \hline 204 \\ 3.5 / 4 / 4.5 \\ 20 \\ \hline \end{gathered}$ | $\begin{gathered} \hline 250 \\ 4.5 / 5 / 5.5 \\ 25 \\ \hline \end{gathered}$ | $\begin{gathered} \hline 306 \\ 5 / 6 / 7 \\ 30 \\ \hline \end{gathered}$ | $\begin{gathered} \hline 357 \\ 6.5 / 7.5 / 8.5 \\ 30 \\ \hline \end{gathered}$ | $\begin{gathered} \hline 408 \\ 7.5 / 8.5 / 9.5 \\ 35 \\ \hline \end{gathered}$ | $\begin{gathered} \hline 459 \\ 7 / 9 / 11 \\ 35 \\ \hline \end{gathered}$ |  |
| $\begin{aligned} & 14 " \\ & .628 \mathrm{ft}^{2} \end{aligned}$ | CFM <br> Throw NC | $\begin{gathered} 194 \\ 3 / 3.5 / 4 \\ <20 \end{gathered}$ | $\begin{gathered} 255 \\ 4 / 4.5 / 5 \\ 20 \end{gathered}$ | $\begin{gathered} 321 \\ 5 / 5.5 / 6 \\ 25 \end{gathered}$ | $\begin{gathered} 383 \\ 5.5 / 6.5 / 7.5 \\ 30 \end{gathered}$ | $\begin{gathered} 449 \\ 7 / 8 / 9 \\ 30 \end{gathered}$ | $\begin{gathered} 510 \\ 7.5 / 9 / 10.5 \\ 35 \end{gathered}$ | $\begin{gathered} 576 \\ 8 / 10 / 12 \\ 35 \end{gathered}$ | $\begin{gathered} 638 \\ 9 / 11 / 13 \\ 40 \end{gathered}$ |

## FOOTNOTE A:

SIZE: Nominal size or the duct opening.
EFFECTIVE AREA: The space between the vanes actually utilized by the air.
VELOCITY: The actual velocity of the air through the vanes measured with a velometer or similar device.
DUCT Pt: The total pressure behind the register in the duct forcing that air through the register.
THROW: The throws noted in the tables are the distance from the register to where the air stream velocity has dropped to not under 100/75/50 F.P.M.

FOOTNOTE C:
NOISE CRITERIA: NC "A" scale. (1) Below NC25 extremely quiet. (2) Below NC30 Quiet Office. (3) Below NC35 Conference Rooms; normal voice 10-30 ft. (4) Below NC40 Conference Rooms; 6-12 ft. normal voice. (5) NC45 conference Rooms; 3-6 ft. normal voice.C

